

Claims

1. A communication link for communicating data between a first opto-electronic equipment capable of providing an optical signal and a second opto-electronic equipment capable of receiving the optical signal,
5 wherein the communication link comprises a first optical channel and a second channel.
2. The communication according to claim 1, wherein the first optical channel and the second channel are parallel to each other.
3. The communication link according to claim 1 or 2, wherein the first
10 optical channel is a fast optical channel and the second channel is a slow optical channel.
4. The communication link according to any of claims 1-3, wherein the first optical channel and the second channel are provided by a single optical link.
- 15 5. The communication link according to claim 1 or 2, wherein the first optical channel is a fast optical channel and the second channel is provided by an electrical connection.
6. The communication link according to claim 5, wherein the second channel is provided by a battery cable.
- 20 7. The communication link according to any of preceding claim, wherein the second channel is capable of providing a continuous monitoring of signal activity from the first opto-electronic equipment.
8. The communication link according to any of preceding claim, wherein the
25 first optical channel is capable of being switched on in accordance with an indication provided by the second channel.
9. The communication link according to claim 8, wherein the indication is initiated by signal activity from the first opto-electronic equipment.
10. The communication link according to claim 8 or 9, wherein the indication provided by the second channel is configured to cause the first optical

channel to be switched on if currently in off-state when signal activity from the first opto-electronic equipment is observed.

11. The communication link according to claim 8, wherein the indication is initiated by a command from the first opto-electronic equipment.
- 5 12. The communication link according to any of preceding claims, wherein when no optical signal is received from the first opto-electronic equipment, the first optical channel is configured to be switched off and a low power monitoring circuitry is configured to be switched on in the second channel.
- 10 13. The communication link according to claim 4, wherein the first opto-electronic equipment is configured to provide an indication causing the second opto-electronic equipment to be switched to a slow-speed mode.
14. The communication link according to claim 13, wherein the indication is provided through the first optical channel.
- 15 15. The communication link according to claim 13, wherein the indication is provided through the second channel.
16. The communication link according to any of claims 13-15, wherein the indication is given by a command.
- 20 17. An opto-mechanical device for providing a communication link, comprising a first opto-electronic equipment for providing an optical signal, a second opto-electronic equipment for receiving the optical signal, a first optical channel and a second channel.
18. The opto-mechanical device according to claim 17, wherein the first optical channel and the second channel are parallel to each other.
- 25 19. The opto-mechanical device according to claim 17 or 18, wherein the first optical channel is a fast optical channel and the second channel is a slow optical channel.

20. The opto-mechanical device according to any of claims 17-19, wherein the first optical channel and the second channel are provided by a single optical link.
- 5 21. The opto-mechanical device according to claim 17 or 18, wherein the first optical channel is a fast optical channel and the second channel is provided by an electrical connection.
22. The opto-mechanical device according to claim 21, wherein the second channel is provided by a battery cable.
- 10 23. The opto-mechanical device according to any of claims 17-22, wherein the second channel is capable of providing a continuous monitoring of signal activity from the first opto-electronic equipment.
24. The opto-mechanical device according to any of claims 17-23, wherein the first optical channel is capable of being switched on in accordance with an indication provided by the second channel.
- 15 25. The opto-mechanical device according to claim 24, wherein the indication is initiated by signal activity from the first opto-electronic equipment.
- 20 26. The opto-mechanical device according to claim 24 or 25, wherein the indication provided by the second channel is configured to cause the first optical channel to be switched on if currently in off-state when signal activity from the first opto-electronic equipment is observed.
27. The opto-mechanical device according to claim 24, wherein the indication is initiated by a command from the first opto-electronic equipment.
- 25 28. The opto-mechanical device according to any of claims 17-24, wherein when no optical signal is received from the first opto-electronic equipment, the first optical channel is configured to be switched off and a low power monitoring circuitry is configured to be switched on in the second channel.

29. The opto-mechanical device according to claim 20, wherein the first opto-electronic equipment is configured to provide an indication causing the second opto-electronic equipment to be switched to a slow-speed mode.
- 5 30. The opto-mechanical device according to claim 29, wherein the indication is provided through the first optical channel.
31. The opto-mechanical device according to claim 29, wherein the indication is provided through the second channel.
- 10 32. The opto-mechanical device according to any of claims 29-31, wherein the indication is given by a command.
33. The opto-mechanical device according to any of claims 17-32, wherein the first opto-electronic equipment and the second opto-electronic equipment are physically connected to each other by a coupling that permits the first opto-electronic equipment to rotate relative to the
15 second opto-electronic equipment about a rotation axis.
34. An apparatus having at least two separated parts communicating with each other and including the opto-mechanical device according to any of claims 17-33.
- 20 35. The apparatus according to claim 34, wherein the at least two separated parts include a keypad part and a display part.
36. The apparatus according to claim 35, wherein the first opto-electronic equipment includes a transmitter light emitting diode situated in the keypad part.
- 25 37. The apparatus according to claim 34 or 35, wherein the second opto-electronic equipment includes a receiver photodiode situated in the display part.
38. The apparatus according to claim 34, wherein the at least two separated parts include a camera module and a telephone body.

39. The apparatus according to claim 38, wherein the first opto-electronic equipment includes a transmitter light emitting device situated in the camera module.
- 5 40. The opto-mechanical device according to claim 38 or 39, wherein the second opto-electronic equipment includes a receiver photodiode situated in the telephone body.
41. An arrangement for saving power in optical communication links, the arrangement comprising the opto-mechanical device according to any of claims 17-33.
- 10 42. An apparatus substantially as described herein with reference to Figures 4, 5, 6 or 7 of the accompanying drawings.
- 15 43. A communication link for communicating data between a first opto-electronic equipment for providing an optical signal and a second opto-electronic equipment capable of receiving the optical signal, wherein the communication link comprises a first optical channel and a second channel and the first opto-electronic equipment determines activation of at least a part of a receiver circuit associated with the first optical channel in the second opto-electronic equipment
- 20 44. The communication link according to claim 43 wherein the activated part of the receiver circuit comprises a photodiode.
45. The communication link according to claim 43 or 44 wherein the second opto-electronic equipment comprises a display.
46. An opto-mechanical device for providing a communication link according to claims 43-45.
- 25 47. Apparatus comprising at least two hand portable devices for providing a communication link according to claims 43-45.
48. Apparatus according to claim 47 wherein the two hand portable devices are co-located.